



RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/917,800A

Input Set : N:\COPIES\G15038us.txt

0

DATE: 02/14/2002

TIME: 11:11:33

Output Set: N:\CRF3\02142002\1917800A.raw

3 <110> APPLICANT: Mendrick, Donna Porter, Mark 5 Johnson, Kory Castle, Arthur Elashoff, Michael Gene Logic, Inc.

- 10 <120> TITLE OF INVENTION: Molecular Toxicology Modeling
- 12 <130> FILE REFERENCE: 44921-5038-US
- 14 <140> CURRENT APPLICATION NUMBER: US 09/917,800A
- 15 <141> CURRENT FILING DATE: 2001-07-31
- 17 <150> PRIOR APPLICATION NUMBER: US 60/222,040
- 18 <151> PRIOR FILING DATE: 2000-07-31
- 20 <150> PRIOR APPLICATION NUMBER: US 60/222,880
- 21 <151> PRIOR FILING DATE: 2000-11-02
- 23 <150> PRIOR APPLICATION NUMBER: US 60/290,029
- 24 <151> PRIOR FILING DATE: 2001-05-11
- 26 <150> PRIOR APPLICATION NUMBER: US 60/290,645
- 27 <151> PRIOR FILING DATE: 2001-05-15
- 29 <150> PRIOR APPLICATION NUMBER: US 60/292,336
- 30 <151> PRIOR FILING DATE: 2001-05-22
- 32 <150> PRIOR APPLICATION NUMBER: US 60/295,798
- 33 <151> PRIOR FILING DATE: 2001-06-06
- 35 <150> PRIOR APPLICATION NUMBER: US 60/297,457
- 36 <151> PRIOR FILING DATE: 2001-06-13
- 38 <150> PRIOR APPLICATION NUMBER: US 60/298,884
- 39 <151> PRIOR FILING DATE: 2001-06-19
- 41 <150> PRIOR APPLICATION NUMBER: US 60/303,459
- 42 <151> PRIOR FILING DATE: 2001-07-09
- 44 <160> NUMBER OF SEQ ID NOS: 1740
- 46 <170> SOFTWARE: PatentIn Ver. 2.1
- 48 <210> SEQ ID NO: 1
- 49 <211> LENGTH: 158
- 50 <212> TYPE: DNA
- 51 <213> ORGANISM: Rattus norvegicus
- 53 <220> FEATURE:
- 54 <223> OTHER INFORMATION: Genbank Accession No. AA108277
- 56 <400> SEQUENCE: 1
- 57 accettigaa etagaagett tetattetga eeetcaagea giteeatate eagaageaaa 60
- 58 aatcggccgt tttgtcgttc aqaatgtttc tgcacagaag atggagaaaa tctaaagtga 120
- 59 aagtgegegt gacacacatg cattteacat atecgete
- 61 <210> SEQ ID NO: 2
- 62 <211> LENGTH: 301
- 63 <212> TYPE: DNA

DATE: 02/14/2002 RAW SEQUENCE LISTING TIME: 11:11:33 PATENT APPLICATION: US/09/917,800A

Input Set : N:\COPIES\G15038us.txt

Output Set: N:\CRF3\02142002\I917800A.raw

ROLONIER SONO 64 <213> ORGANISM: Rattus norvegicus 66 <220> FEATURE: 67 <223> OTHER INFORMATION: Genbank Accession No. AA684919 69 <400> SEQUENCE: 2 70 aaaccccgag tttatttaac cattttggag gtttaagagc atggtaccag caattgtttc 60 71 cctccaatcg gcatctccta gctacatcac agtgtggtga aatggtggtt aaccctcatt 120 72 gtcatcttga ctgcatctgg actcacatag gaggcacctc tgggagtatg tgggagggta 180 73 ctgccagaga ggcttaacag gatggcagac atttctgaat atgggcagca gcaaaccatc 240 74 agctqtqqtc ctqaqctqtq ccttqtqctq qaqqqcaqqt ctqtaqqtaq catqatqqtc 300 75 g 77 <210> SEQ ID NO: 3 78 <211> LENGTH: 371 79 <212> TYPE: DNA 80 <213> ORGANISM: Rattus norvegicus 82 <220> FEATURE: 83 <223> OTHER INFORMATION: Genbank Accession No. AA685974 85 <220> FEATURE: 86 <221> NAME/KEY: misc_feature 87 <222> LOCATION: (1)..(371) 88 <223> OTHER INFORMATION: n = a or c or g or t 90 <400> SEQUENCE: 3 91 geetegeeae ageetttatt gegegggeae tecaceggge tetgeaggat geaeggggge 60 ₁> 92 taggatgtca gagcggggac cctctggttt gttgagggtg acctatggcg cantgggaga 120 93 cececagace eggaacteta ttaateeetg gteaggeeag getgaagagg gatgagetga 180 94 cttqqacaag ctggattcag cccggttctg tcacttgggt gcattgaagg gcagcgcacg 240 95 ctggtttcat cgggttgtca ggagagcgca accactcctt cttcagcagc tgcttcagct 300 96 gtnagagccg catgttgggg ttttcctgct tcaaccgtgg cagcttcanc tcctcaaatg 360 97 cggtgaaggc c 371 99 <210> SEQ ID NO: 4 100 <211> LENGTH: 290 101 <212> TYPE: DNA 102 <213> ORGANISM: Rattus norvegicus 104 <220> FEATURE: 105 <223> OTHER INFORMATION: Genbank Accession No. AA686132 107 <220> FEATURE: 108 <221> NAME/KEY: misc_feature 109 <222> LOCATION: (1)..(290) 110 <223> OTHER INFORMATION: n = a or c or g or t 112 <400> SEQUENCE: 4 113 aagataatga tgacattntc atgctggaga aaaaaataag aacatctagt atgccaganc 60 114 aggeteataa agtntgttte aaggagataa aaagaeteaa aaaantgeet catteaatge 120 115 ctgattatgc tctgactaga aattatttgg aacttatggt ggagcttcct tggaacaaaa 180 116 gtacaactga ccgcctggac atccgggcag cccgcatcct tctggacaat gaccactatg 240 117 ccatggaaaa gctgaagagg agggtttttg gagtactttg gctgttgaga 119 <210> SEQ ID NO: 5 120 <211> LENGTH: 342

121 <212> TYPE: DNA

124 <220> FEATURE:

122 <213> ORGANISM: Rattus norvegicus

RAW SEQUENCE LISTING DATE: 02/14/2002 PATENT APPLICATION: US/09/917,800A TIME: 11:11:33

Input Set : N:\COPIES\G15038us.txt

Output Set: N:\CRF3\02142002\1917800A.raw

125 <223> OTHER INFORMATION: Genbank Accession No. AA686461 127 <400> SEQUENCE: 5 128 caacaactgt ccagctttga ggaaatctga aatagaatac tatgccatgt tggctaaaac 60 129 tqqtqtccat cactacagtq qcaataacat tqaattqqqc acaqcqtqtq qaaaatacta 120 130 cagagtatge acactggeta teattgacee aggtgattee gatattatta gaageatgee 180 131 agaacagact ggtgagaagt aaacaagaaa gttctccttt aataaaactt tgccagagct 240 132 ccttttaaaa aatatggtgt ctgggcttct tcttgtttgg ctttcttgaa accactggca 300 133 agacttgggt gaaagttatg tatactgcct ggtttccatt tt 135 <210> SEQ ID NO: 6 136 <211> LENGTH: 496 137 <212> TYPE: DNA 138 <213> ORGANISM: Rattus norvegicus 140 <220> FEATURE: 141 <223> OTHER INFORMATION: Genbank Accession No. AA799294 143 <400> SEQUENCE: 6 144 atctgtgtag accacaggca ggtgtttgtt tctggcatgg ccacattcca gatacaagaa 60 145 cqtaqaqaqa cccaqcaaqq caccacaccc tctcatqqca qaqaqqqaqc aqtqqqqcaq 120 146 ggtgagggcc agctaataaa gcctcccctc cccccttaa ctttgttcat agggcaaatg 180 147 gctgacggaa ggagaaggtg ggtaggttga gagggtatgc gtcaagactt ggggagaggt 240 148 agcagatage egtettgagg etetgtttte aatgagtagt eetagtegae ettaaccaaa 300 149 getecateeg attgtattet tgeeaaaaca caacagacae atgeacgaac atggggegta 360 150 agcaataatg teetetegtg ttetecaegg etgetegaac caagtggetg gtteatttgg 420 151 ttgacactga ttcgccttta accatgacgg ttcctgtttt ttatttcaca gaaagccaat 480 152 aaaattgttt agctat 496 154 <210> SEQ ID NO: 7 155 <211> LENGTH: 328 156 <212> TYPE: DNA 157 <213> ORGANISM: Rattus norvegicus 159 <220> FEATURE: 160 <223> OTHER INFORMATION: Genbank Accession No. AA799323 162 <400> SEQUENCE: 7 163 atgtgttgtg tacagtcgca cagaaattgt tttattcagg tgagaagaaa acaggtggga 60 164 gaactcagaa tacaaaagaa cgaacatctc gtcctcctcc agccttgaga ctttctggaa 120 165 tatccgtgag gtctccaaag ttcccctggc aagttacaca ggcacaagat tgttttcttt 180 166 gagtgccggg atgcggtgaa caaacataca aagtgagaat tcttgcttca gtgaatatta 240 167 aataaacaat aatgctacag ctgggaccca tctgagtgaa ggcgtacgac agaacgccaa 300 168 ctgaaagttc aaagtctggt catgaatt 170 <210> SEQ ID NO: 8 171 <211> LENGTH: 591 172 <212> TYPE: DNA 173 <213> ORGANISM: Rattus norvegicus 175 <220> FEATURE: 176 <223> OTHER INFORMATION: Genbank Accession No. AA799461 178 <400> SEOUENCE: 8 179 ccacacaaat caagacatgg ctttattgaa tttaaattct accacctacc caaaagcctt 60 180 ggggacattc actggtcaaa gggcacactt agcgacagac aggaactgtc tctttcctta 120 181 cgtctgataa attaactctg ctgtaaccta tggatgaaat gcaaggaggc agtgcccggg 180

182 cttcagcgtg atttgaggtc tacaggtctt ccagggggcc acagtttgtg aattccgact 240 183 ttgctgagcg ggaggcttgg caggatcagg cagcaggtgc tqqqacaaca ctqqctctcc 300





RAW SEQUENCE LISTING DATE: 02/14/2002 PATENT APPLICATION: US/09/917,800A TIME: 11:11:33

Input Set : N:\COPIES\G15038us.txt

Output Set: N:\CRF3\02142002\1917800A.raw

```
184 tggcctggct gcctactctg ctgggggctg cagatggccc acagacatgg cacatcctct 360
185 ttcaaacctg gggatcagtc ttctctttgg tgtcactctg tggagagcag aagctctctg 420
186 ctctgttccc tctctagcta tagcaggaaa cacagtaaga cacataaatt aggtcatttg 480
187 ccgcctctca gtgcctgtca aggacaaaag ttcatggtaa tgaactgtcc agcacagccc 540
188 tgaagactca atgagettee teacteeetg agtteeeaga gtegeeagee t
190 <210> SEQ ID NO: 9
191 <211> LENGTH: 683
192 <212> TYPE: DNA
193 <213> ORGANISM: Rattus norvegicus
195 <220> FEATURE:
196 <223> OTHER INFORMATION: Genbank Accession No. AA799498
198 <400> SEQUENCE: 9
199 ccaaaagcaa gaaataggct atgtttatta cactgtggca agtttgtgct ggaagataag 60
200 aaacagtott gtagaaaato agcaacataa aaataaataa ataaacaaat aaataaacag 120
201 gatcacttga gaggtggtcc cagagctggg gaaagaagag ccgcaggcag agtcagaagc 180
202 cagagtetge agecaggagg tetteetaaa acaaceteag eeegteacag eeeaaaegae 240
203 tgactgcgcc aatccggtct atcttctgcc caaagcagct tgaactatgt gccatcttgg 300
204 aatttegaag teteteetgg ateeggaagg egetgtettg agaeetaagg aetettttta 360
205 gaagttettt tgtagggeet tggteetttg agagetgtet etgageeatt teetetgaet 420
206 tttctcttat cagctccagc agcttcggca tcgtggattg ttccggggac tggctaagac 480
207 ttcccagggg atgggagtga cctcccaggg gcgacagatt aaggaaaagc aggagcagaa 540
208 tcatctgggg caccacctcg ggagatccag gtggcagaat gatgggcaag cacctgcaag 600
209 gtgtccggct cgggcgaaat ctggccccaa ggcaaattcc cacgatggtc caatgaattc 660
210 ggacaagcca aactgttccg ggg
212 <210> SEQ ID NO: 10
213 <211> LENGTH: 731
214 <212> TYPE: DNA
215 <213> ORGANISM: Rattus norvegicus
217 <220> FEATURE:
218 <223> OTHER INFORMATION: Genbank Accession No. AA799511
220 <220> FEATURE:
221 <221> NAME/KEY: misc_feature
222 <222> LOCATION: (1)..(731)
223 <223> OTHER INFORMATION: n = a or c or g or t
225 <400> SEQUENCE: 10
226 gggtacaaaa gtatttattt tataaaactt gtatttaaaa tagagcttat ctgtcaactc 60
227 acaaatccta atttaaaaca taacacatta cccttagcta atctgatgtt aacctttaca 120
228 atcaacaccc attittggaa tittattaag aacctgtact aaatgaagtt titaatcaga 180
229 aaacattccc ttttacctta aaagtgcttc ttaaatgaag gcaccaacaa gaactacttt 240
230 cagatggtac agaatttett atttettgaa gaetetgtgg ttgaccaett etteattagt 300
231 tacctgcage aagacacett ccattttact accaacacea etgaaggaag caagaaaage 360
232 tttattaatg atcacttggc ttgcctcagc tgttgaaatg aagcacttta cagtctttgt 420
233 ggcaccagaa tatacttgtc catggttcat atcaatgcca tgggaagtgg gaaaaactca 480
234 atacgggttc ctccaccata accccaattc ctccactcct ccaggacata gttcctccaa 540
235 cataggtccc cccagtccgg aacaacaaag ttcaccctca tgacccttgt aaaggtgcgc 600
236 tengeegete ggecaatetg geecaggeaa ateceaaagg ggecataate caacaggeaa 660
237 cgttccgggg aatgttccgc caatccaaaa atacgggcaa agtaaccggg gccaaagtgc 720
238 accacaatgt g
240 <210> SEQ ID NO: 11
```

RAW SEQUENCE LISTING DATE: 02/14/2002 PATENT APPLICATION: US/09/917,800A TIME: 11:11:33

Input Set : N:\COPIES\G15038us.txt

Output Set: N:\CRF3\02142002\1917800A.raw

- 241 <211> LENGTH: 483 242 <212> TYPE: DNA 243 <213> ORGANISM: Rattus norvegicus 245 <220> FEATURE: 246 <223> OTHER INFORMATION: Genbank Accession No. AA799523 248 <220> FEATURE: 249 <221> NAME/KEY: misc_feature 250 <222> LOCATION: (1)..(483) 251 <223> OTHER INFORMATION: n = a or c or g or t 253 <400> SEQUENCE: 11 254 aaatcataaa tgtacaacag cttcttaact ctacacacgc acttaaattt ttaaaqqaaa 60 255 aacgttatgt cttattacac catgatectg getaataget ttteaaaact ttttgagaaa 120 256 aatottaaaa aaggtttoac atgtoacotg aaacttacaa atttaacatt atcaaagaag 180 257 qaatqcttct acactcttac aaagaccact agaaagaacc aacatttaaa agqctagaaa 240 258 ctgtctcaaa gcatttttt ttacatcctt cctcaacagt aagtattaat tatcaatcca 300 > 259 tcacaaatgc tctcgcatcg ctctgtgtct ccgcatacaa tgctattagc atactganat 360 260 aaagttotaa aatgtaatto gaaactgago ogtoggtact ogggotoaca otoccaataa 420 261 caattacccc aggaattaga aaatcaatac ggtcttcaaa tacccaattc caatcccaaa 480 262 cac 264 <210> SEQ ID NO: 12 265 <211> LENGTH: 570 266 <212> TYPE: DNA 267 <213> ORGANISM: Rattus norvegicus 269 <220> FEATURE: 270 <223> OTHER INFORMATION: Genbank Accession No. AA799531 272 <220> FEATURE: 273 <221> NAME/KEY: misc_feature 274 <222> LOCATION: (1)..(570) 275 <223> OTHER INFORMATION: n = a or c or g or t 277 <400> SEQUENCE: 12 278 aaggeggeag etgtttattt tgaggtaaet gteaeaeagt aetgttatat ggtagaatag 60 279 tcattatgta atcttgagag aggttgtcta aggtaggatt tggagccttc cacacttatc 120 280 agatgccttc tcattagttt cttctagttt tgcaattcta gatccaaatt gtatggcccg 180 281 tttgggcaga agggcagagg atgagagacc aagttccaca gctgcaaggc gtaaaatgag 240 282 cttctcacca actccacggg gcaaagccag gtctaccttt tcccaaactg gcagagaatt 300 283 caggaaagat acaacatttt catccagaaa aggaaatctt gcttcctttc catgatcagc 360 284 aataactcta tcatcacgac caaggtttct agaagaaatg cgacccaatt ccattgctat 420 285 ttcctcattc aatccttcta ggccaagaga ctgaaagcgg gcacgatgac gggaataacc 480 > 286 tgccaactgc tcatctgcna caatcccagt gagaatcacc tttgcactgc tcttgntaga 540 287 ctgcacagca tcctcggttc acaacaaaac 570 289 <210> SEQ ID NO: 13 290 <211> LENGTH: 633 291 <212> TYPE: DNA 292 <213> ORGANISM: Rattus norvegicus 294 <220> FEATURE:
 - Use of n and/or Xaa has been detected in the Sequence Listing:
 Review the Sequence Listing to incure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

295 <223> OTHER INFORMATION: Genbank Accession No. AA799545

297 <220> FEATURE:

298 <221> NAME/KEY: misc_feature 299 <222> LOCATION: (1)..(633)

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/917,800A

DATE: 02/14/2002 TIME: 11:11:34

Input Set : N:\COPIES\G15038us.txt

Output Set: N:\CRF3\02142002\1917800A.raw

```
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:358 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:383 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:907 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42
L:1011 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47
L:1506 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73
L:1766 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86
L:2077 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103
L:2103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104
L:2456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:123
L:2858 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144
L:2859 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144
L:3027 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153
L:3051 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154
L:3377 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:171
L:3453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:175
L:3607 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:183
L:3700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:188
L:3933 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:200
L:4115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:210
L:4196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:214
L:4321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:220
L:4521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:230
L:4561 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:232
L:4670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:237
L:4695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:238
L:4719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:239
L:4937 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:250
L:5093 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:258
L:5324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:270
L:5484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:279
L:5596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:285
L:5637 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:287
L:5679 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:289
L:5775 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:294
L:5931 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:303
L:6151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:315
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/917,800A

DATE: 02/14/2002 TIME: 11:11:34

Input Set : N:\COPIES\G15038us.txt

Output Set: N:\CRF3\02142002\1917800A.raw

L:6173 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:316 L:6218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:318